

SECTION 403 - STONE RIPRAP

1. GENERAL

Stone for riprap shall be dense durable stone that is clean, free from earth, cracks, seams, soapstone, shale or other disintegrated material that would tend to decrease the durability of the material after placement.

2. QUALITY

Stone used for riprap shall be subjected to and shall conform to the following tests and test requirements:

A. Specific gravity shall not be less than 2.35 as determined, according to A.S.T.M., Designation C-127.

B. The absorption shall not exceed 4.5 percent, as determined, according to A.S.T.M., Designation C-127.

3. SIZE AND WEIGHT

The average weight of each stone shall be between 60-150 pounds. The maximum weight of any stone shall not be greater than 400 pounds. Not more than 20 percent of the stone riprap, by weight, shall consist of pieces weighing less than 20 pounds.

4. PLACEMENT

Stone for riprap shall be placed in such a manner as to produce a reasonably well-graded mass of rock with the minimum practicable percentage of voids and shall be constructed to the lines and grades shown on the drawings. Riprap shall be placed to its full course thickness in one operation in such a manner as to minimize segregation and to avoid damaging the graded slope. Placing riprap in layers will not be permitted. The larger stones shall be well distributed both vertically and horizontally in the course and the finished riprap shall be free from objectionable pockets of small stones and clusters of large stones. Hand placing may be required to a limited extent but only to the extent necessary to secure the results specified above. A tolerance of 6 inches above the theoretical slope lines and grades shown on the drawings will be allowed in the finished surface of the riprap.